



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,264	03/24/2004	Adam J. Weissman	64557.000015	4087
21967	7590	10/27/2006	EXAMINER	
HUNTON & WILLIAMS LLP INTELLECTUAL PROPERTY DEPARTMENT 1900 K STREET, N.W. SUITE 1200 WASHINGTON, DC 20006-1109			WASSUM, LUKE S	
		ART UNIT	PAPER NUMBER	2167
DATE MAILED: 10/27/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/807,264	WEISSMAN ET AL.	
	Examiner	Art Unit	
	Luke S. Wassum	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 March 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 16-56 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 16-56 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 24 March 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>20040324</u> .	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

The Invention

1. The claimed invention is a method and system for displaying documents/advertisements that are conceptually close to a user-supplied concept, wherein the retrieved documents/advertisements are ordered based upon monetary values associated with said documents/advertisements.

Priority

2. The Applicants' claim to domestic priority under 35 U.S.C. § 120, as a continuation of application 09/493,701, filed 28 January 2000, which is a continuation-in-part of application 09/431,760, filed 1 November 1999, is acknowledged.

3. Since the limitations of the claims, particularly the feature of ordering documents/advertisements based upon a monetary value associated with said documents/advertisements, does not appear to be supported by application 09/431,760, the priority date of the claims of the instant invention is the application date of the immediate parent application 09/493,701; that is, 28 January 2000.

Information Disclosure Statement

4. The Applicants' Information Disclosure Statement, filed 24 March 2004, has been received and entered into the record. Since the Information Disclosure Statement complies with the provisions of MPEP § 609, the references cited therein have been considered by the examiner. See attached form PTO-1449.

Claim Objections

5. Claims 45 and 54 are objected to because of the following informalities:
Regarding claims 45 and 54, these claims' preamble recites a method/system for displaying advertisements, but there is no display of advertisements in the body of the claims.

6. Claim 49 is objected to because of the following informalities:
There appears to be a typographical error in the preamble of the claim: "A system that generates method for displaying documents...":

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 19, 26, 32 and 38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

9. Regarding claims 19, 26, 32 and 38, the Applicants' specification discloses only an embodiment wherein the monetary value is used to determine the cost to an advertiser, but fails to disclose any use of the monetary value in determining a cost to the user to view the retrieved document.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 17, 18, 20-22, 24, 25, 27, 28, 30, 31, 33, 34, 36, 37, 39, 40 and 52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Regarding claims 17, 18, 20-22, 24, 25, 27, 28, 30, 31, 33, 34, 36, 37, 39 and 40, these claims all depend upon independent claims which include the limitation that the order corresponds to the monetary value of the retrieved documents, thus incorporating this limitation. However, these claims also include limitations that the order is based upon various other factors. Although the order could conceivably be based upon a combination of factors, the claim language fails to recite a combination and thus renders these claims indefinite, since the order cannot correspond to a monetary value, while at the same time be based upon some other unrelated factor.

13. Claims 20, 27, 33 and 39 recite the limitation "the semantic space". There is insufficient antecedent basis for this limitation in the claims.

14. Regarding claim 52, this claim attempts to include both a system and a method for using that system. For instance, the preamble calls for a system, but all of the

limitations are for method steps. Such a claim makes it unclear whether infringement would occur when one creates a system that generates a result related to a search request, or when a user actually uses the system to generate a result related to a search request. See *IPXL Holdings, LLC v. Amazon.com, Inc.*, CAFC 05-1009, -1487, (Fed. Cir. 2005).

Claim Rejections - 35 USC § 101

15. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

16. Claims 16-48, 55 and 56 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

17. Regarding claims 16, 23, 29, 35, 41, 45 and 55, these claims recite a method of displaying documents, but fail to recite a tangible result, a requirement for compliance with the provisions of 35 U.S.C. § 101 for a process that can be interpreted as being implemented through software.

For a result to be tangible, it must be more than just a thought or a computation; it must have real-world value rather than an abstract result. See *GOTTSCHALK, Comr. Pats. v. BENSON et al.* (US SupCt) 175 USPQ 673 at 676-77 (invention ineligible because it had "no substantial practical application"). For instance, an additional step that included either storing the retrieved documents in a database, or displaying the retrieved documents to a user would constitute a tangible result.

Claims 16, 23, 29, 35, 41, 45, however, merely cite 'transmitting for display...' as the result. Since the '...for display...' is merely an intended use, and does not require the documents be displayed but only transmitted, these claims are non-statutory.

Claim 55 cites 'searching a target data set...' as the result.

18. Claims 17-22, 24-28, 30-34, 36-40, 42-44, 46-48 and 56, fully incorporating the deficiencies of their respective parent claims, are likewise rejected.

Claim Rejections - 35 USC § 102

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

20. Claims 41, 43, 45, 47, 51, 52, 53 and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by **Caid et al.** (U.S. Patent 5,619,709).

21. Regarding claim 41, **Caid et al.** teaches a method for displaying documents responsive to a received concept as claimed, comprising:

a) associating one or more documents with one or more concepts (see disclosure of the creation of context vectors for use in a document storage and retrieval system, wherein the context vectors represent the concepts associated with the document, col. 2, lines 20-31; see also extensive disclosure of the development of the document lexicon, col. 5, line 15 through col. 9, line 46);

b) receiving a concept (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15; see also col. 3, lines 8-12);

c) determining one or more concepts close in meaning to the received concept (see disclosure of the creation of a query vector based upon the user's input

of words, terms, records or documents, col. 11, lines 5-15, and the identification of those summary vectors [and associated concepts] that are most relevant to the search, col. 11, lines 16-20);

- d) identifying one or more documents related to the received concept or one or more concepts close in meaning to the received concept (see disclosure of the identification of those summary vectors [and associated documents] that are most relevant to the search, col. 11, lines 16-20); and
- e) transmitting for display the one or more documents associated with the one or more concepts close in meaning to the received concept (see disclosure of the output of the documents, col. 11, lines 20-23).

22. Regarding claim 45, **Caid et al.** teaches a method for displaying advertisements responsive to a received concept as claimed, comprising:

- a) associating one or more documents with one or more concepts (see disclosure of the creation of context vectors for use in a document storage and retrieval system, wherein the context vectors represent the concepts associated with the document, col. 2, lines 20-31; see also extensive

disclosure of the development of the document lexicon, col. 5, line 15

through col. 9, line 46);

b) receiving a search input including at least one concept (see disclosure of the

creation of a query vector based upon the user's input of words, terms,

records or documents, col. 11, lines 5-15; see also col. 3, lines 8-12);

c) determining one or more concepts close in meaning to the concept in the

search input (see disclosure of the creation of a query vector based upon

the user's input of words, terms, records or documents, col. 11, lines 5-15,

and the identification of those summary vectors [and associated concepts]

that are most relevant to the search, col. 11, lines 16-20);

d) identifying one or more documents associated with the one or more concepts

close in meaning to the concept in the search input (see disclosure of the

identification of those summary vectors [and associated documents] that

are most relevant to the search, col. 11, lines 16-20); and

e) transmitting for display the one or more documents associated with the one or

more concepts close in meaning to the concept in the search input (see

disclosure of the output of the documents, col. 11, lines 20-23).

23. Regarding claim 53, Caid et al. teaches a system for displaying documents responsive to a received concept as claimed, comprising:

- a) association means for associating one or more documents with one or more concepts (see disclosure of the creation of context vectors for use in a document storage and retrieval system, wherein the context vectors represent the concepts associated with the document, col. 2, lines 20-31; see also extensive disclosure of the development of the document lexicon, col. 5, line 15 through col. 9, line 46);
- b) receiving means for receiving a concept (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15; see also col. 3, lines 8-12);
- c) determination means for determining one or more concepts close in meaning to the received concept (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15, and the identification of those summary vectors [and associated concepts] that are most relevant to the search, col. 11, lines 16-20);
- d) identification means for identifying one or more documents related to the received concept or one or more concepts close in meaning to the received concept (see disclosure of the identification of those summary vectors [and

associated documents] that are most relevant to the search, col. 11, lines 16-20); and

e) transmission means for transmitting for display the one or more documents associated with the one or more concepts close in meaning to the received concept (see disclosure of the output of the documents, col. 11, lines 20-23).

24. Regarding claim 54, **Caid et al.** teaches a system for displaying advertisements responsive to a received concept as claimed, comprising:

a) association means for associating one or more documents with one or more concepts (see disclosure of the creation of context vectors for use in a document storage and retrieval system, wherein the context vectors represent the concepts associated with the document, col. 2, lines 20-31; see also extensive disclosure of the development of the document lexicon, col. 5, line 15 through col. 9, line 46);

b) receiving means for receiving a search input including at least one concept (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15; see also col. 3, lines 8-12);

- c) determination means for determining one or more concepts close in meaning to the concept in the search input (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15, and the identification of those summary vectors [and associated concepts] that are most relevant to the search, col. 11, lines 16-20);
- d) identification means for identifying one or more documents associated with the one or more concepts close in meaning to the concept in the search input (see disclosure of the identification of those summary vectors [and associated documents] that are most relevant to the search, col. 11, lines 16-20); and
- e) transmission means for transmitting for display the one or more documents associated with the one or more concepts close in meaning to the concept in the search input (see disclosure of the output of the documents, col. 11, lines 20-23).

25. Regarding claims 43 and 47, Caid et al. additionally teaches a method wherein the concept is received through a search request input by a user (see disclosure of the

creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15; see also col. 3, lines 8-12).

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

28. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the

various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

29. Claims 16, 17, 18, 20-22, 29-31, 33-37, 39, 40 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Caid et al.** (U.S. Patent 5,619,709) in view of **Buck et al.** (U.S. Patent 6,078,866).

30. Regarding claim 16, **Caid et al.** teaches a method for displaying documents responsive to a received concept substantially as claimed, comprising:

- a) determining one or more concepts close in meaning to the received concept (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15);

b) identifying one or more documents related to the received concept or one or more concepts close in meaning to the received concept (see disclosure of the identification of those summary vectors [and associated documents] that are most relevant to the search, col. 11, lines 16-20); and

c) transmitting for display the one or more documents based on an order (see disclosure of the ordering of the output documents, col. 11, lines 20-23).

Caid et al. does not explicitly teach a method wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept.

Buck et al., however, teaches a method wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept (see disclosure that retrieved documents are ranked based upon the denominated value associated with the document, col. 3, line 66 through col. 4, line 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the feature of ranking returned documents based upon a monetary value associated with the documents, since this would allow content sponsors (such as web site owners or advertisers) to influence the prominence given to their content when it is retrieved by a user as a result of a search, "...and not through computation of a ranking based on arbitrary factors or subjective determination by a search service" (see col. 3, lines 52-59).

31. Regarding claim 29, **Caid et al.** teaches a method for generating a result relative to a search request substantially as claimed, comprising:

- a) maintaining a target data set comprising a plurality of target data elements associated with one or more concepts (see disclosure of the context vectors and information items, col. 2, lines 20-31 et seq.);
- b) receiving a concept for a search request (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15; see also col. 3, lines 8-12);

- c) identifying target data elements close in meaning to the concept (see disclosure of the identification of those summary vectors [and associated documents] that are most relevant to the search, col. 11, lines 16-20); and
- d) transmitting for display the one or more documents based on an order (see disclosure of the ordering of the output documents, col. 11, lines 20-23).

Caid et al. does not explicitly teach a method wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept.

Buck et al., however, teaches a method wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept (see disclosure that retrieved documents are ranked based upon the denominated value associated with the document, col. 3, line 66 through col. 4, line 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the feature of ranking returned documents based upon a monetary value associated with the documents, since this would allow content sponsors (such as web site owners or advertisers) to influence the prominence given to their content when it is retrieved by a user as a result of a search, "...and not through computation of a ranking based on arbitrary factors or subjective determination by a search service" (see col. 3, lines 52-59).

32. Regarding claim 35, **Caid et al.** teaches a method for generating a result related to a search request substantially as claimed, comprising:

- a) maintaining a target data set of elements (see disclosure of the context vectors and information items, col. 2, lines 20-31 et seq.);
- b) receiving a concept from which to generate a result (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15; see also col. 3, lines 8-12);
- c) relating the concept to elements in the target data set that are close in meaning to the concept (see disclosure of the identification of those summary vectors

[and associated documents] that are most relevant to the search, col. 11, lines 16-20); and

d) transmitting for display the information from the target data elements identified based on an order (see disclosure of the ordering of the output documents, col. 11, lines 20-23).

Caid et al. does not explicitly teach a method wherein base monetary values are assigned to the elements in the target data set and the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept.

Buck et al., however, teaches a method wherein base monetary values are assigned to the elements in the target data set (see disclosure that subscribers pay a subscription fee, with a higher fee assigning a higher value to their listing in the database, col. 4, lines 13-18 et seq.) and the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept (see disclosure that retrieved documents are

ranked based upon the denominated value associated with the document, col. 3, line 66 through col. 4, line 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the feature of ranking returned documents based upon a monetary value associated with the documents, since this would allow content sponsors (such as web site owners or advertisers) to influence the prominence given to their content when it is retrieved by a user as a result of a search, "...and not through computation of a ranking based on arbitrary factors or subjective determination by a search service" (see col. 3, lines 52-59).

33. Regarding claim 49, Caid et al. teaches a system that generates documents responsive to a received concept substantially as claimed, comprising:

- a) determination means for determining one or more concepts close in meaning to the received concept (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15);

b) identification means for identifying one or more documents related to the received concept or one or more concepts close in meaning to the received concept (see disclosure of the identification of those summary vectors [and associated documents] that are most relevant to the search, col. 11, lines 16-20); and

c) transmission means for transmitting for display the one or more documents based on an order (see disclosure of the ordering of the output documents, col. 11, lines 20-23).

Caid et al. does not explicitly teach a system wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept.

Buck et al., however, teaches a system wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept (see disclosure that retrieved

documents are ranked based upon the denominated value associated with the document, col. 3, line 66 through col. 4, line 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the feature of ranking returned documents based upon a monetary value associated with the documents, since this would allow content sponsors (such as web site owners or advertisers) to influence the prominence given to their content when it is retrieved by a user as a result of a search, "...and not through computation of a ranking based on arbitrary factors or subjective determination by a search service" (see col. 3, lines 52-59).

34. Regarding claim 51, **Caid et al.** teaches a system of generating a result relative to a search request substantially as claimed, comprising:

- a) storage means for maintaining a target data set comprising a plurality of target data elements associated with one or more concepts (see disclosure of the context vectors and information items, col. 2, lines 20-31 et seq.);

- b) receiving means for receiving a concept for a search request (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15; see also col. 3, lines 8-12);
- c) identification means for identifying target data elements close in meaning to the concept (see disclosure of the identification of those summary vectors [and associated documents] that are most relevant to the search, col. 11, lines 16-20); and
- d) transmission means for transmitting for display the one or more documents based on an order (see disclosure of the ordering of the output documents, col. 11, lines 20-23).

Caid et al. does not explicitly teach a system wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept.

Buck et al., however, teaches a system wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the

concepts close in meaning to the received concept (see disclosure that retrieved documents are ranked based upon the denominated value associated with the document, col. 3, line 66 through col. 4, line 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the feature of ranking returned documents based upon a monetary value associated with the documents, since this would allow content sponsors (such as web site owners or advertisers) to influence the prominence given to their content when it is retrieved by a user as a result of a search, "...and not through computation of a ranking based on arbitrary factors or subjective determination by a search service" (see col. 3, lines 52-59).

35. Regarding claim 52, **Caid et al.** teaches a system for generating a result related to a search request substantially as claimed, comprising:

- a) maintaining a target data set of elements (see disclosure of the context vectors and information items, col. 2, lines 20-31 et seq.);

- b) receiving a concept from which to generate a result (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15; see also col. 3, lines 8-12);
- c) relating the concept to elements in the target data set that are close in meaning to the concept (see disclosure of the identification of those summary vectors [and associated documents] that are most relevant to the search, col. 11, lines 16-20); and
- d) displaying information from the target data elements based on an order (see disclosure of the ordering of the output documents, col. 11, lines 20-23).

Caid et al. does not explicitly teach a system wherein base monetary values are assigned to the elements in the target data set and the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept.

Buck et al., however, teaches a system wherein base monetary values are assigned to the elements in the target data set (see disclosure that subscribers pay a subscription fee, with a higher fee assigning a higher value to their listing in the

database, col. 4, lines 13-18 et seq.) and the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept (see disclosure that retrieved documents are ranked based upon the denominated value associated with the document, col. 3, line 66 through col. 4, line 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the feature of ranking returned documents based upon a monetary value associated with the documents, since this would allow content sponsors (such as web site owners or advertisers) to influence the prominence given to their content when it is retrieved by a user as a result of a search, "...and not through computation of a ranking based on arbitrary factors or subjective determination by a search service" (see col. 3, lines 52-59).

36. Regarding claims 17, 18, 20-22, 30, 31, 33, 34, 36, 37, 39 and 40, **Caid et al.** additionally teaches a method wherein the order is based on descending predicted relevance/semantic distance/degree of closeness in meaning/context of the document to

the received concept (see disclosure that the retrieved records can be displayed in order of vector proximity, which corresponds to relative relevance to the query, col. 3, lines 16-18).

37. Claims 23-28 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Caid et al.** (U.S. Patent 5,619,709) in view of **Buck et al.** (U.S. Patent 6,078,866) in view of **Eldering** (U.S. Patent 6,298,348).

38. Regarding claim 23, **Caid et al.** teaches a method for displaying advertisements related to a received concept substantially as claimed, comprising:

- a) determining one or more concepts close in meaning to the received concept (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15);
- b) identifying one or more documents related to the received concept or one or more concepts close in meaning to the received concept (see disclosure of

the identification of those summary vectors [and associated documents] that are most relevant to the search, col. 11, lines 16-20); and

c) transmitting for display the one or more documents based on an order (see disclosure of the ordering of the output documents, col. 11, lines 20-23).

Caid et al. does not explicitly teach a method wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept, nor wherein the documents are advertisements.

Buck et al., however, teaches a method wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept (see disclosure that retrieved documents are ranked based upon the denominated value associated with the document, col. 3, line 66 through col. 4, line 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the feature of ranking returned documents based upon a monetary value associated with the documents, since this would allow content sponsors (such as web site owners or advertisers) to influence the prominence given to their content when it is retrieved by a user as a result of a search, "...and not through computation of a ranking based on arbitrary factors or subjective determination by a search service" (see col. 3, lines 52-59).

Neither **Caid et al.** nor **Buck et al.** explicitly teaches a method wherein the documents are advertisements, although **Caid et al.** does teach that "the context vectors may be associated with words, terms, documents, document portions, queries, images, qualitative data, people, or any other type of information item" (col. 2, lines 33-35), which would clearly include advertisements.

Eldering, however, explicitly teaches a method wherein the documents are advertisements (see col. 7, lines 20-32 et seq.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to return information about an advertisement or a product or service, since

this would allow advertisements to be targeted toward consumers that are likely to have an interest in the advertisement, based upon the assumption that they are interested in the concepts reflected in the search query input by the user.

39. Regarding claim 50, **Caid et al.** teaches a system for displaying advertisements related to a received concept substantially as claimed, comprising:

- a) determination means for determining one or more concepts close in meaning to the received concept (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15);
- b) identification means for identifying one or more documents related to the received concept or one or more concepts close in meaning to the received concept (see disclosure of the identification of those summary vectors [and associated documents] that are most relevant to the search, col. 11, lines 16-20); and
- c) display means for displaying the one or more documents based on an order (see disclosure of the ordering of the output documents, col. 11, lines 20-23).

Caid et al. does not explicitly teach a system wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept, nor wherein the documents are advertisements.

Buck et al., however, teaches a system wherein the order of the returned documents corresponds to the relationship between monetary values determined for each of the one or more documents identified as related to the received concept or the concepts close in meaning to the received concept (see disclosure that retrieved documents are ranked based upon the denominated value associated with the document, col. 3, line 66 through col. 4, line 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the feature of ranking returned documents based upon a monetary value associated with the documents, since this would allow content sponsors (such as web site owners or advertisers) to influence the prominence given to their content when it is retrieved by a user as a result of a search, "...and not through

computation of a ranking based on arbitrary factors or subjective determination by a search service" (see col. 3, lines 52-59).

Neither **Caid et al.** nor **Buck et al.** explicitly teaches a system wherein the documents are advertisements, although **Caid et al.** does teach that "the context vectors, may be associated with words, terms, documents, document portions, queries, images, qualitative data, people, or any other type of information item" (col. 2, lines 33-35), which would clearly include advertisements.

Eldering, however, explicitly teaches a system wherein the documents are advertisements (see col. 7, lines 20-32 et seq.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to return information about an advertisement or a product or service, since this would allow advertisements to be targeted toward consumers that are likely to have an interest in the advertisement, based upon the assumption that they are interested in the concepts reflected in the search query input by the user.

40. Regarding claims 24, 25, 27 and 28, **Caid et al.** additionally teaches a method wherein the order is based on descending predicted relevance/semantic distance/degree of closeness in meaning of the document to the received concept (see disclosure that the retrieved records can be displayed in order of vector proximity, which corresponds to relative relevance to the query, col. 3, lines 16-18).

41. Regarding claim 26, **Eldering** additionally teaches a method wherein the elements in the target data set are assigned a monetary value based upon how closely the element matched the requested search (see col. 1, lines 18-36; see also col. 3, lines 46-56; see also col. 5, lines 36-45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to assign a monetary value based upon how closely the element matched the requested search, since this would allow content to be targeted specifically to consumers whose interests correlate with the advertisement (see col. 3, lines 46-56).

42. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Caid et al.** (U.S. Patent 5,619,709) in view of **Voorhees** ("Query Expansion Using Lexical-Semantic Relations").

43. Regarding claim 55, **Caid et al.** teaches a method of generating a search result in response to a search request as claimed, comprising:

- a) organizing concepts according to their meaning into a lexicon of predefined known relationships between the concepts, said lexicon defining elements of a semantic space (see disclosure of the creation of context vectors for use in a document storage and retrieval system, wherein the context vectors represent the concepts associated with the document, col. 2, lines 20-31; see also extensive disclosure of the development of the document lexicon, col. 5, line 15 through col. 9, line 46);
- b) receiving the search request and associating said search request with a first set of concepts from said lexicon (see disclosure of the creation of a query vector based upon the user's input of words, terms, records or documents, col. 11, lines 5-15, and the identification of those summary vectors [and

associated concepts] that are most relevant to the search, col. 11, lines 16-20); and

c) searching a target data set for elements close in meaning to the larger set of search terms based on the determined semantic distances (see disclosure of the identification of those summary vectors [and associated documents] that are most relevant to the search, col. 11, lines 16-20).

Caid et al. does not explicitly teach a method including expanding the query by adding terms that are semantically close in meaning to the terms submitted as part of the query.

Voorhees, however, teaches a method including expanding the query by adding terms that are semantically close in meaning to the terms submitted as part of the query (see disclosure that queries are expanded using the relations encoded in WordNet, a large general-purpose lexical system built at Princeton University, page 61, third paragraph under (1) Introduction).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate query expansion, since this would ease the user's burden when

selecting query words for the retrieval system (see page 61, first paragraph under (1) Introduction).

44. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Caid et al.** (U.S. Patent 5,619,709) in view of **Voorhees** ("Query Expansion Using Lexical-Semantic Relations") as applied to claim 55 above, and further in view of **Eldering** (U.S. Patent 6,298,348).

45. Regarding claim 56, **Caid et al.** and **Voorhees** teach a method of generating a search result substantially as claimed.

Neither **Caid et al.** nor **Voorhees** explicitly teaches a method wherein the elements in the target data set are assigned a monetary value based upon how closely the element matched the requested search.

Eldering, however, teaches a method wherein the elements in the target data set are assigned a monetary value based upon how closely the element matched the

requested search (see col. 1, lines 18-36; see also col. 3, lines 46-56; see also col. 5, lines 36-45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to assign a monetary value based upon how closely the element matched the requested search, since this would allow content to be targeted specifically to consumers whose interests correlate with the advertisement (see col. 3, lines 46-56).

46. Claims 19, 32 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Caid et al.** (U.S. Patent 5,619,709) in view of **Buck et al.** (U.S. Patent 6,078,866) as applied to claims 16, 17, 18, 20-22, 29-31, 33-37, 39, 40 and 49 above, and further in view of **Eldering** (U.S. Patent 6,298,348).

47. Regarding claims 19, 32 and 38, **Caid et al.** and **Buck et al.** teach a method for displaying documents substantially as claimed.

Neither **Caid et al.** nor **Buck et al.** explicitly teaches a method wherein the monetary value is a price for viewing a document.

Eldering, however, teaches a method wherein the monetary value is a price for viewing a document (see col. 3, lines 46-56).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the price for viewing the document as the monetary value, since this would allow the consumer to charge less to view the ad, since it is likely that it will be of interest (see col. 3, lines 46-56).

48. Claims 42 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Caid et al.** (U.S. Patent 5,619,709) as applied to claims 41, 43, 45, 47, 53 and 54 above, and further in view of **Eldering** (U.S. Patent 6,298,348).

49. Regarding claims 42 and 46, **Caid et al.** teaches a method of generating a search result substantially as claimed.

Caid et al. does not explicitly teach a method wherein the documents are advertisements, although **Caid et al.** does teach that "the context vectors may be

associated with words, terms, documents, document portions, queries, images, qualitative data, people, or any other type of information item" (col. 2, lines 33-35), which would clearly include advertisements.

Eldering, however, explicitly teaches a method wherein the documents are advertisements (see col. 7, lines 20-32 et seq.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to return information about an advertisement or a product or service, since this would allow advertisements to be targeted toward consumers that are likely to have an interest in the advertisement, based upon the assumption that they are interested in the concepts reflected in the search query input by the user.

50. Claims 44 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Caid et al.** (U.S. Patent 5,619,709) as applied to claims 41, 43, 45, 47, 53 and 54 above, and further in view of **Buck et al.** (U.S. Patent 6,078,866).

51. Regarding claims 44 and 48, **Caid et al.** teaches a method of generating a search result substantially as claimed.

Caid et al. does not explicitly teach a method wherein the association of documents with concepts is based in part on a monetary value.

Buck et al. teaches a method wherein the association of documents with concepts is based in part on a monetary value (see disclosure that retrieved documents are ranked based upon the denominated value associated with the document, col. 3, line 66 through col. 4, line 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the feature of ranking returned documents based upon a monetary value associated with the documents, since this would allow content sponsors (such as web site owners or advertisers) to influence the prominence given to their content when it is retrieved by a user as a result of a search, "...and not through computation of a ranking based on arbitrary factors or subjective determination by a search service" (see col. 3, lines 52-59).

Conclusion

52. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dedrick (U.S. Patent 5,724,521) teaches a system for dynamically determining an amount to charge for serving an advertisement, based upon how closely a customer matches a desired profile for the advertisement.

Hanson et al. (U.S. Patent 5,974,398) teaches a method enabling valuation of user access of advertising carried by interactive information and entertainment services.

Hoyle (U.S. Patent 6,141,010) teaches a method for providing software applications that include targeted advertising based on the demographics and user interaction with the computer.

Eldering (U.S. Patent 6,216,129) teaches an advertisement selection system supporting discretionary target market characteristics.

Davis et al. (U.S. Patent 6,269,361) teaches a method for enabling information providers to influence a position for a search listing within a search result list generated by an Internet search engine.

Roth et al. (U.S. Patent 6,285,987) teaches a system for providing advertisements to viewers who access websites.

Hazlehurst et al. (U.S. Patent 6,289,353) teaches an intelligent query engine that automatically develops multiple information spaces in which different types of real-world objects can be represented.

Eldering (U.S. Patent 6,324,519) teaches a system that allows consumers to receive targeted advertisements and ensures advertisers that their advertisements are received by an appropriate audience.

Ryan et al. (U.S. Patent 6,421,675) teaches a method of searching wherein the results most frequently selected by users who previously used the same search query are weighted more heavily and thus are presented with a higher rank.

Eldering et al. (U.S. Patent 6,457,010) teaches a subscriber characterization system.

Eldering (U.S. Patent 6,560,578) teaches an advertising selection system in which vectors describing an actual or hypothetical market for a product or desired audience can be determined.

Soulanille (U.S. Patent 6,978,263) teaches a method of providing a search result list wherein search terms are associated with advertisers' bids.

Eldering (U.S. Patent 7,062,510) teaches a consumer profiling and advertisement selection system.

Wiseman et al. (U.S. Patent Application Publication 2005/0144069) teaches a method and system for providing targeted graphical advertisements.

Fuloria et al. (U.S. Patent Application Publication 2005/0222900) teaches a system for selectively delivering advertisements based at least part on trademark issues.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke S. Wassum whose telephone number is 571-272-4119. The examiner can normally be reached on Monday-Friday 8:30-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

In addition, INFORMAL or DRAFT communications may be faxed directly to the examiner at 571-273-4119. Such communications must be clearly marked as INFORMAL, DRAFT or UNOFFICIAL.

Customer Service for Tech Center 2100 can be reached during regular business hours at (571) 272-2100, or fax (571) 273-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Luke S. Wassum
Primary Examiner
Art Unit 2167

lsw
25 October 2006